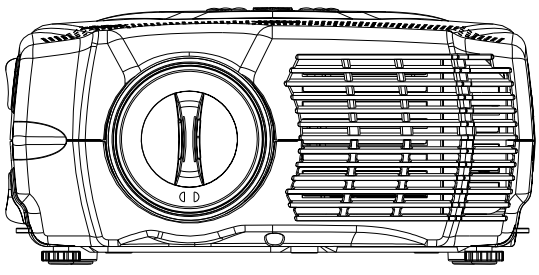
FLP 3000-X

LCD Projector
User's Manual



SAGEM SA - Siège social : Le ponant de Paris - 27, rue Leblanc – 75512 PARIS CEDEX 15 - FRANCE
Société anonyme à directoire et conseil de surveillance au capital de • 33 300 000 – 562 082 909 R.C.S. PARIS

© 2002 **SAGEM SA**. All rights reserved

Reproduction is any manner whatsoever without the written permission of SAGEM SA is strictly forbidden.
Informations in this document is subject to change without notice.

Trademarks used in this user-guide: SAGEM and the SAGEM logo are trademarks of SAGEM SA ; Apple, Macintosh and PowerBook logo are trademarks of *Apple Computer, Inc.* ; Microsoft, Windows logo are trademarks of *Microsoft Corporation* ; DLP (Digital Light Processing), Texas Instruments logo are trademarks of *Texas Instruments Corporation*.

Others trademarks and trade names may be used in this document to refer to either the entities claiming the marks and names or their products.
SAGEM SA disclaims any proprietary interest in trademarks and trade names other than its own.

Contents

Important Safety Notice.....01

Accessories.....02

Parts of the Projector.....03

Installation.....04

Connections.....05

Basic Operation.....08

Using the Remote Control.....11

Menu Operation (OSD).....12

Troubleshooting (Indicators).....15

Cleaning and Replacing the Air Filter.....15

Replacing the Lamp Unit.....16

Specifications.....17

IMPORTANT SAFETY NOTICE

PRECAUTIONS

Please read this manual carefully before using the projector and keep this manual handy for future reference.

WARNING

- Do not expose this unit to rain or moisture to prevent fire or shock.
- Do not open the cabinet to avoid electrical shock. Refer all servicing to qualified service personnel.
- Handle the power cable carefully and avoid excessive bending. A damaged cable may cause electric shock or fire.

CAUTION

- Do not look into the lens while the unit is operating. Strong light may cause harm to your eyes.
- Do not block ventilation openings to prevent inside components from overheating.
- Do not put your hand or any object near the ventilation slots because the air is hot.

IMPORTANT SAFEGUARDS

INSTALLATION

- Do not place the unit in direct sunlight, near heaters or heat radiating applications.
- Do not expose this unit to dust, smoke or steam which may harm internal components.
- Handle the unit carefully. Dropping or jarring may damage internal components.
- Do not place heavy objects or liquids on the top of the unit. Spilled liquids may cause damage.
- Do not push objects of any kind through openings of this projector as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock.
- Do not use this projector near water or in contact with water.
- Do not use the unit while the temperature is high or varies greatly. The unit must be used at environment temperature between 5°C (41°F) and 35°C (95°F).

INSTALLATION ON THE CEILING

- The ceiling must be strong enough to support the unit and the installation must be in accordance with any local building codes. The unit must be installed by qualified service personnel.

POWER SUPPLY

- This unit is designed to operate on a power supply of 100~240VAC, 50 - 60 Hz.
- Be sure that your power supply fits the above requirement before attempting to use the unit.
- If you are not sure of the type of power, please consult your appliance dealer or local power company.
- Before disconnecting the power cable, make sure you have followed the shut-off procedure.
- Disconnect the power cable from the power outlet after using the unit.

CLEANING

- Make sure to unplug the power cable before cleaning.
- Do not use water, liquid aerosol cleaners, strong detergents or solvents such as alcohol. Please use damp cloth and wipe on the cabinet gently.
- Use a blower or lens paper to clean the lens. Be careful not to scratch or mar the lens.
- Use a vacuum cleaner to clean periodically the ventilation slots and speaker grills or change the air filter (see p15). Accumulated dust on the ventilation slots may cause the unit over-heated and lead to malfunction.

LAMP REPLACEMENT

- Under normal usage, the life time of lamp is about 1500 hours. The output luminance will drop as lamp life diminishes. User can check the lamp life status in the MENU of projector.
- Change the lamp cartridge when the brightness is no more acceptable (see p16 for instruction).

CARRYING AROUND

- Please use the carrying case to carry this unit and make sure the lens is protected with lens cap.
- Do not subject this unit to strong mechanical shock.

WARNING

Only use the appropriate batteries, according the manufacturer specifications (see "Specifications" section in page 17). The provided batteries are notre chargeable. Bringback the defective or empty batteries to your local waste disposal in accordance with the current regulations. Do not throw of used batteries in the dustbin.

ACCESSORIES

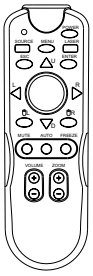
AC power cable
(1.8m / 6.0ft)

VGA cable
(1.8 m / 6.0ft)

Video cable
(1.8m / 6.0ft)

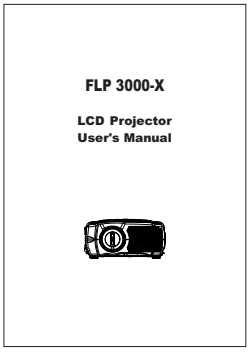
USB mouse cable
(1.8m / 6.0ft)

Audio cable
(1.8m / 6.0ft)



AAA battery x 2

Remote control and batteries



User's manual

<Not supplied as standard accessories>

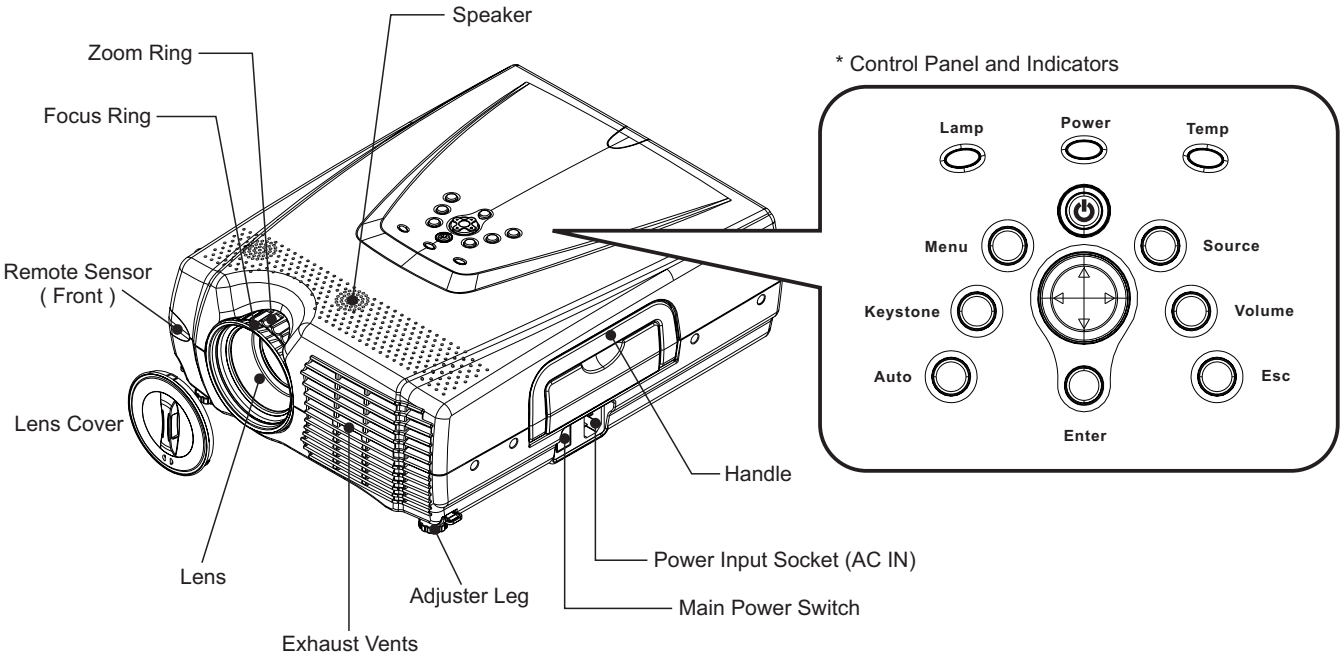
Component YCbCr/YPbPr cable
(1.8m / 6.0ft)

DVI cable
(1.8m / 6.0ft)

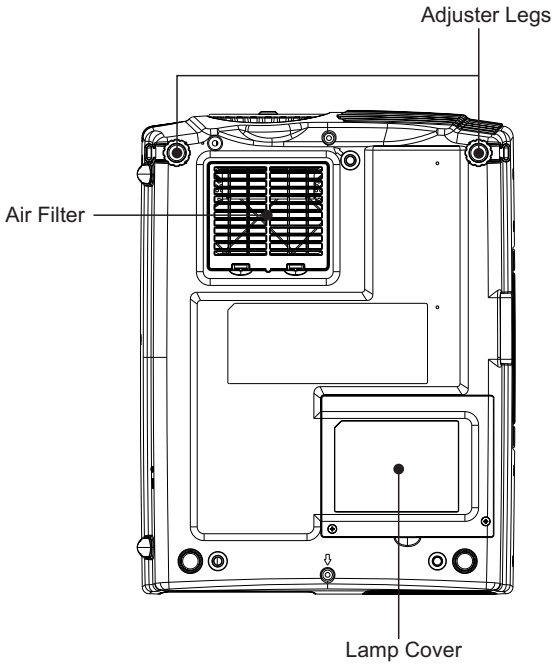
S-Video cable
(1.8m / 6.0ft)

PARTS OF THE PROJECTOR

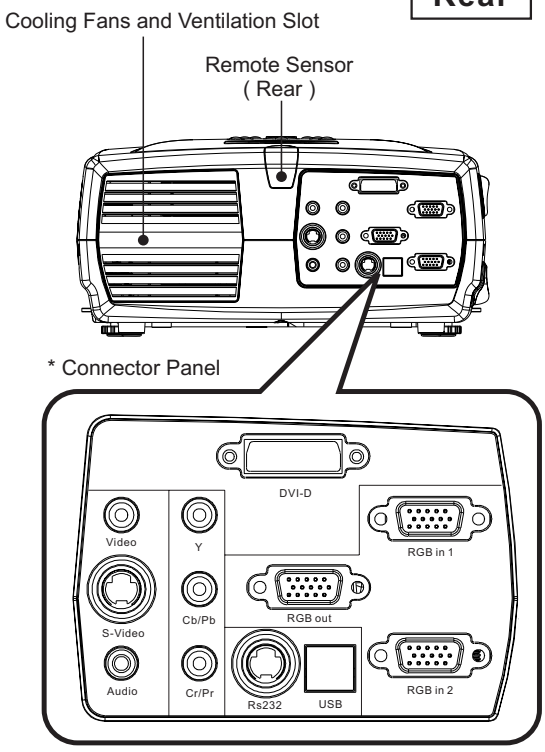
Front, Side, and Top



Bottom



Rear

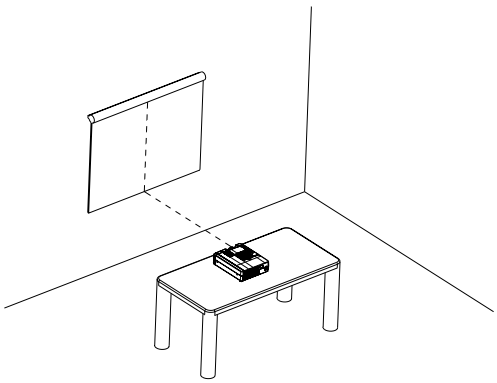


INSTALLATION

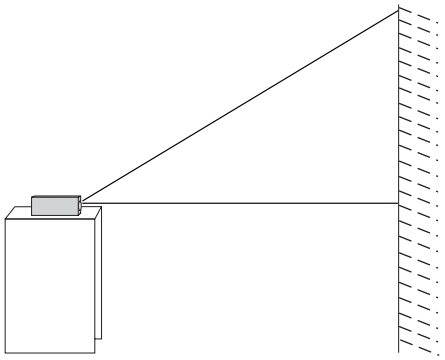
<NOTE!> Please read the important safety notice (p1) carefully before installation.

Positioning

Please place the unit on a solid plat level surface.



Projection distance and image size



The distance from projector lens to the screen will determine the size of the projected image. The maximum image size is about 282 ~ 366 inches diagonally at a distance of 15 meter.

Please refer to the table below for the image size projected.

Projection Distance (M)	Image Size (Diagonal)	
	Wide (inch)	Tele (inch)
1	24	18
2	48	37
3	72	56
4	97	74
5	121	93
6	146	112
7	170	131
8	195	150
9	219	169
10	244	187
11	268	206
12	293	225
13	317	244
14	341	263
15	366	282

* "Wide" and "Tele" means the maximum and minimum image size diagonally at the same distance by adjusting lens to zoom.

Ventilation

* Please do not place any object near the ventilation slots of the projector within 30cm distance.

* Please prevent any scraps or lint suck into ventilation slots or use the projector in the dusty environment.

* Please do not operate the projector while the ambient temperature or the humidity is too high.

* Please use the projector at plate level and use the adjuster legs to adjust the height. Do not operate the projector upside down or at an inclined level. This may damage the projector.

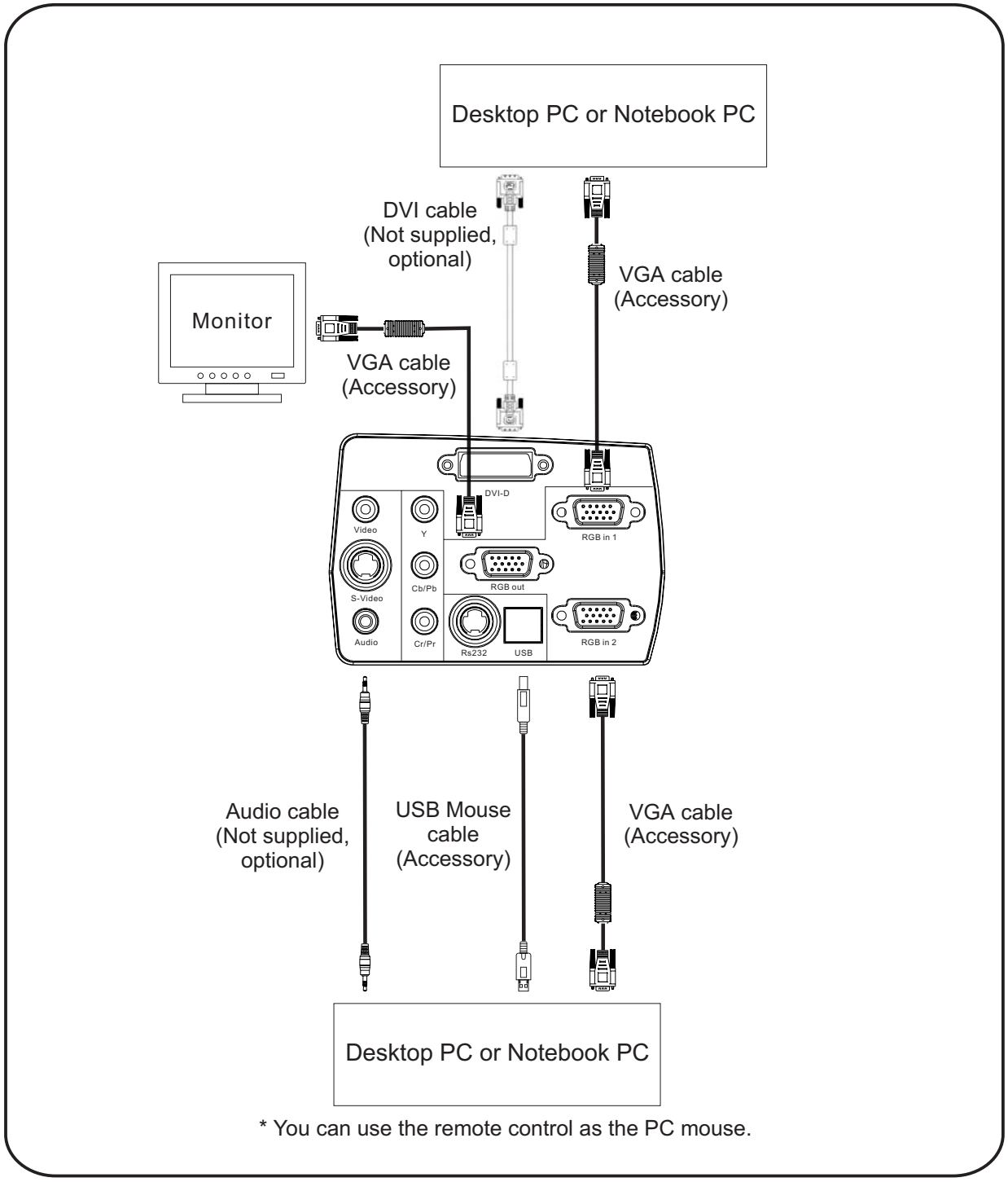
Ceiling installation

* The projector can be installed on the ceiling for education, conference and home entertainment applications.

* The ceiling mount is an optional accessory. Please contact qualified service personnel or agent for further information or service.

CONNECTIONS

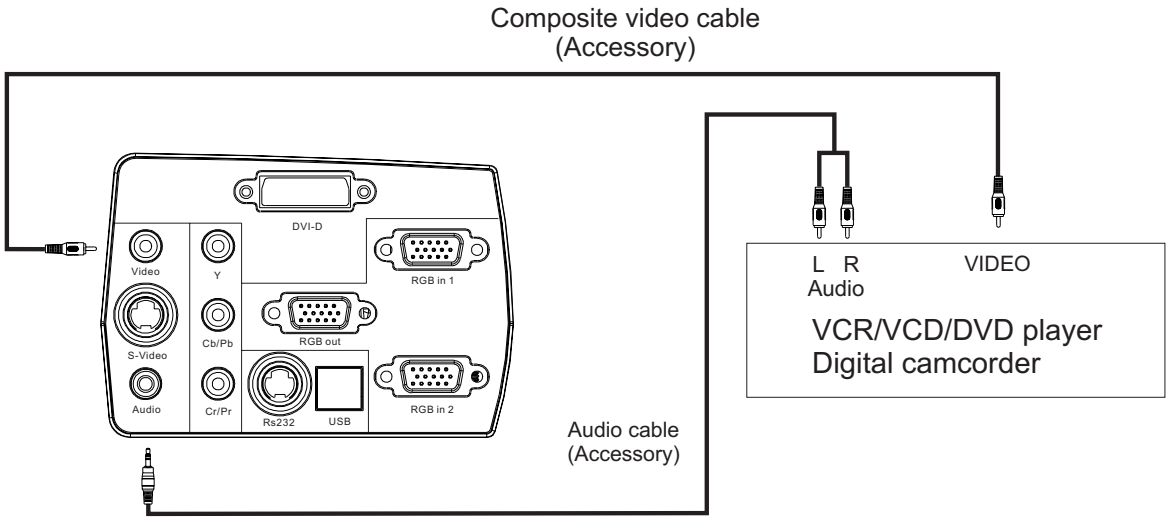
- **Connecting a computer or a notebook PC**



* You can use the remote control as the PC mouse.

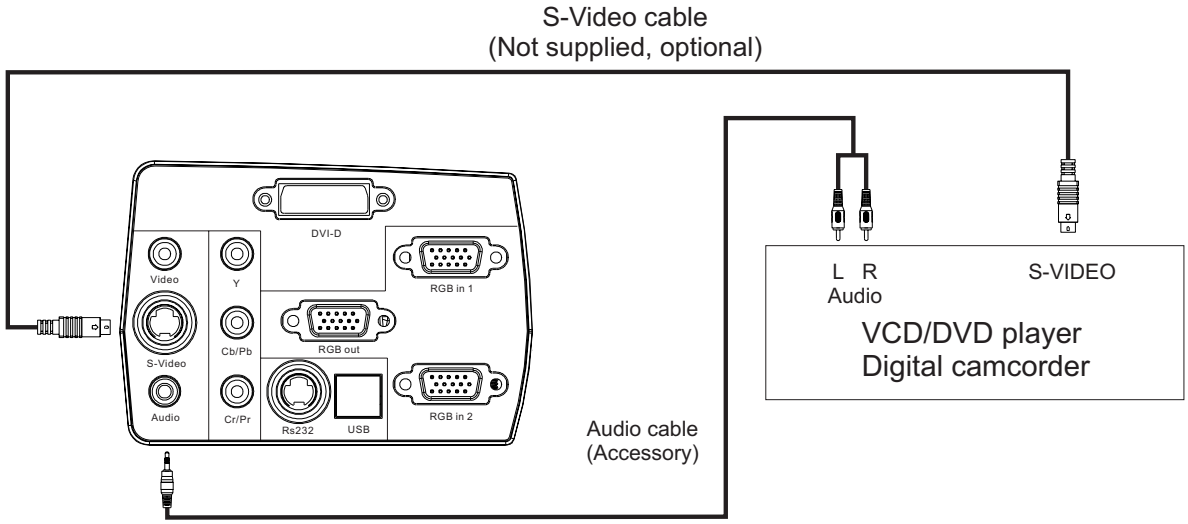
- **Connecting video equipments**

Composite video images



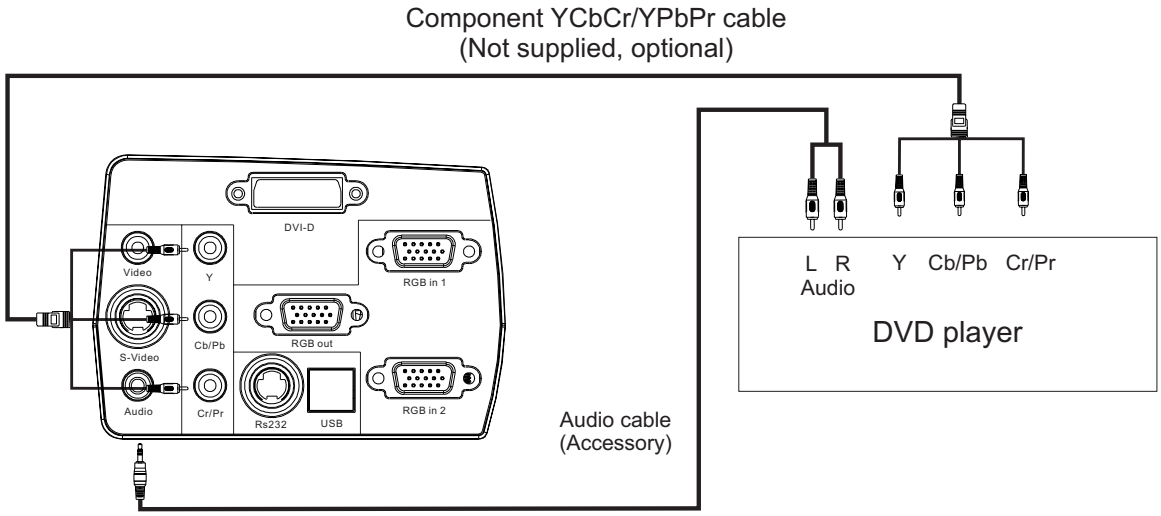
* Connecting a VCR/VCD/DVD player, digital camcorder by using a composite video cable

S-Video images



* Connecting a VCD/DVD player, digital camcorder by using a S-Video cable

Component images: YCbCr/YPbPr

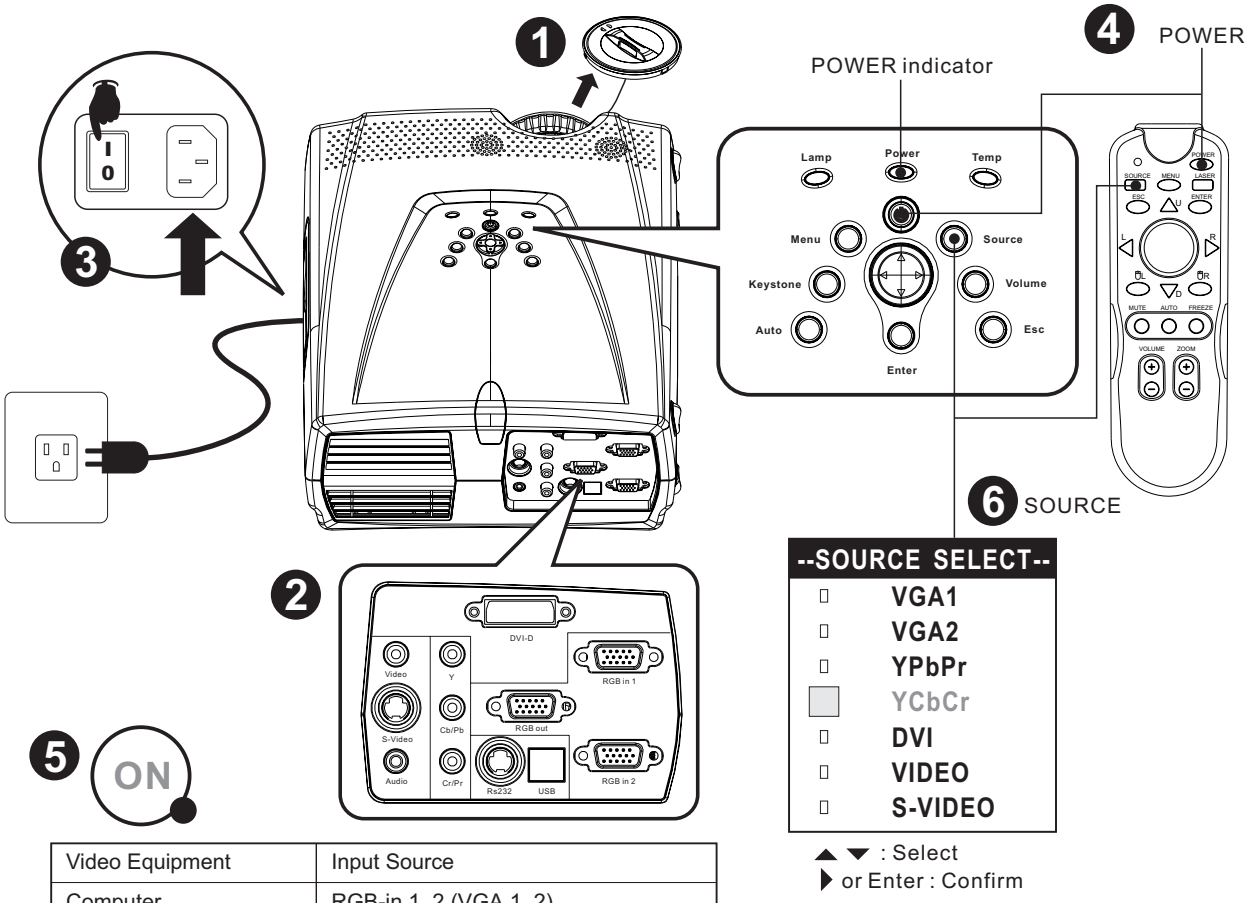


* Connecting a DVD player by using a component video cable (YCbCr/YPbPr)

BASIC OPERATION

Power On

1. Remove the lens cover.
2. Connect a computer or video equipment to the projector.
3. Connect the power cord, and turn on the MAIN POWER switch.
   The three indicators will flash once together, and the POWER indicator will light RED.
4. Press the POWER button.
   The POWER indicator will flash GREEN for a while, and then light steadily.
5. Turn on the connected input source.
6. Press the SOURCE button to select the input signal.

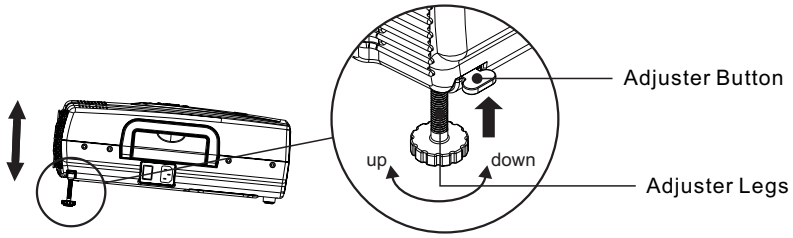


Video Equipment	Input Source
Computer	RGB-in 1, 2 (VGA 1, 2)
VCR/VCD/DVD Player Digital Camcorder	Video (Composite video images)
	S-Video (S-Video images)
DVD Player Set-top-box	YCbCr (Component images)
	YPbPr (Component images)

Adjustment

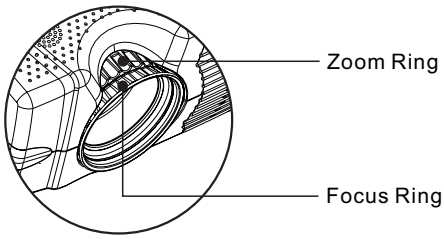
- **Projection Angle**

  Lift the projector and press the adjuster buttons to adjust the projection angle. Then, release the buttons to lock the extended adjuster legs. You can turn the bases of the adjuster legs to adjust the angle slightly.



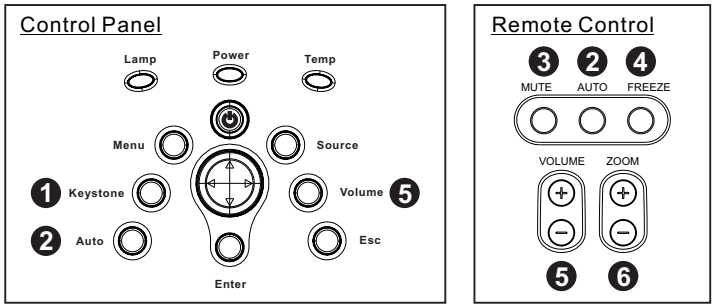
- **Image Size & Focus**

  Turn the focus/zoom ring to adjust the image focus and size.



- **Other Functions**

  The hot keys on the control panel or remote control



1. Keystone --- Keystone adjustment

   Press the KEYSTONE button and ▲▼ ◀ ▶ to correct the keystone distortion.

2. Auto --- Automatic screen adjustment

   When the AUTO button is pressed, the image will be adjusted automatically in accordance with the signal being input.

3. Mute --- Muting the sound temporarily

   Press the button again to restore the sound.

4. Freeze --- Freezing animated images

   A still image is displayed. Press the button again to restore the image.

5. Volume --- Adjusting the volume of the projector's speaker

   Press VOLUME +/- (remote control) or ◀ ▶ (control panel) to adjust volume.

6. Zoom --- Enlarging the projected image

   Use ZOOM +/- to change the enlargement ratio.

Power Off

1. Press the POWER button twice to turn off the power.
   To prevent mis-operation, a confirmation message appears when POWER is pressed once.
   The power turns off when you press the button once more.
   The lamp will turn off and the cooling fan will keep running.
   The POWER indicator will flash GREEN for 60 sec.

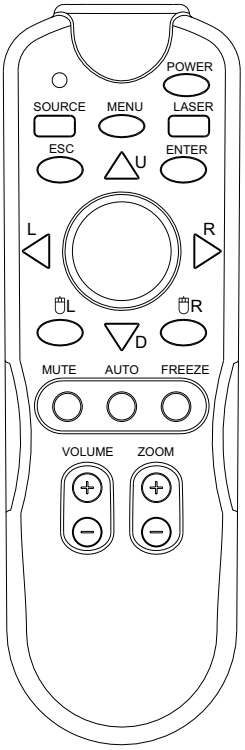
2. Wait until the POWER indicator lights RED steadily (until the cooling fan stops).
   Be careful not to cut power to the projector while the cooling fan is still running.

3. Turn off the MAIN POWER switch.

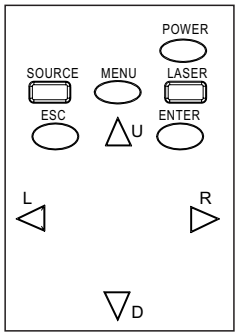
WARNING

If the projector is turned off abnormally and restart immediately, the POWER indicator will flash GREEN for 60 sec (for cool-down). When the POWER indicator lights RED steadily, press the POWER button to restart the unit.

USING THE REMOTE CONTROL



General Function Keys



- **POWER**: turning on the unit and starting operation.

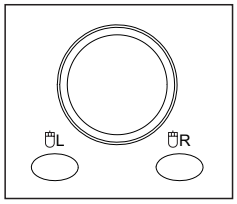
- **SOURCE:** selecting the input source manually such as VGA (connecting computer), Video, S-Video, DVI, YCbCr, or HDTV (YPbPr).

- **MENU**: On-Screen Display menu (OSD) and adjust the picture elements. Using "**ENTER**" button to enter OSD components or using "**ESC**" to cancel OSD.

- **LASER**: pressing the button to use the remote control as a laser pointer.

> ***Caution!*** Do not point LASER pointer to anyone's eyes or stare into beam.
>
> Laser Beam:Laser type: Class 2
> Wavelength: 650nm
> Output: 0.45-0.80 mW

Mouse Keys



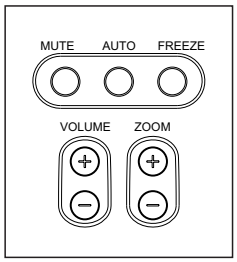
User can use the remote control as a wireless PC mouse while connecting the projector to a computer.

- **L**: the same as "Left button" of PC mouse.

- **R**: the same as "Right button" of PC mouse.

- ▲ ▼ ◀ ▶: moving the mouse "up", "down", "left" and "right"

Hot Keys



- **MUTE:** no audio effect. Press the same button to relieve the function.

- **AUTO:** adjusting the image automatically in accordance with the input signal.

- **FREEZE:** freezing the picture. Press the same button to relieve the function.

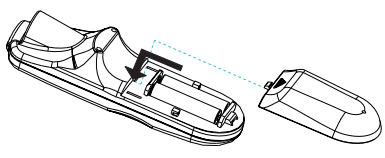
- **VOLUME:** using +, - to adjust volume.

- **ZOOM:** using +, - to zoom the projected image.

INSERTING BATTERIES BEFORE OPERATION

WARNING

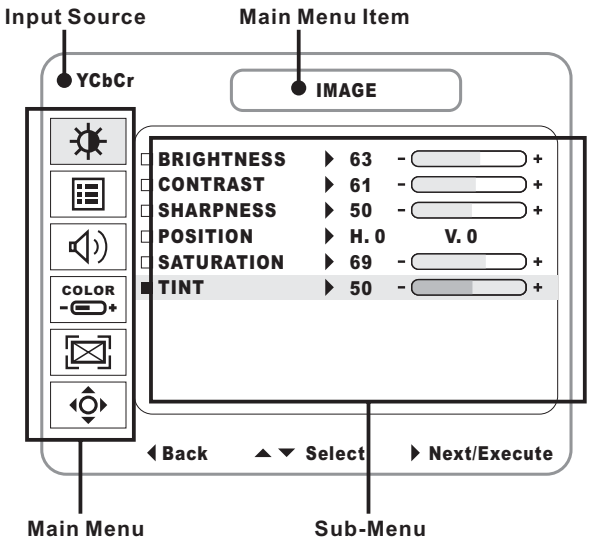
Only use the appropriate batteries, according the manufacturer specifications (see "Specifications" section in page 17). The provided batteries are notre chargeable. Bring back the defective or empty batteries to your local waste disposal in accordance with the current regulations. Do not throw of used batteries in the dustbin.



MENU OPERATION (OSD)

You can use the ON-SCREEN MENU to make various adjustments and settings.

1. Press the MENU button to display the On-screen Menu.
2. Use ▲▼ to select a main menu item, and then press ▶ to enter the selected sub-menu.
3. Use ▲▼ to select a sub-menu item, and then press ▶ to enter an individual adjustment screen or the next menu level.
4. Use ◀ ▶ to adjust the setting, and ▲▼ to select an item.
5. Press MENU to return to the previous screen.
   Press ▶ or ENTER to accept the setting.
   Press ◀ to return to the previous menu level.
6. To close the menu, press ESC.



- **List of Functions**

IMAGE

Sub-menu	Function
BRIGHTNESS	Adjust the image brightness.
CONTRAST	Adjust the difference between light and shade in the image.
SHARPNESS	Adjust the image sharpness.
POSITION	Move the image display position vertically and horizontally.
SATURATION	Adjust the color intensity for the image.
TINT	Adjust the image tint.
PHASE	Adjust clock phase if any banding noise.

SETTING

Sub-menu	Function
FREEZE	Freeze animated image.
SOURCE	Select the input source.
PIP MODE	Display the images in the Picture-in-Picture mode. * PIP SIZE: Open or close the sub-screen and select its size. * PIP SOURCE: Select the input source of the sub-screen. * PIP POSITION: Select the position of the sub-screen.
LANGUAGE	Set the language for OSD.

AUDIO

Sub-menu	Function
VOLUME	Adjust the volume.
MUTE	Mute the sound temporarily.

ADVANCED

Sub-menu	Function
COLOR MODE	Select a gamma color-curve mode to get better image quality.
COLOR TEMP.	If the color temperature is lower, colors appear reddish and color tone appears softer. If the color temperature is higher, colors appear bluish and color tone appears sharper.
RGB GAIN	Adjust the image contrast for each RGB color.
RGB LEVEL	Adjust the image brightness for each RGB color.
PATTERN INPUT	Use the patterns to check the projection effect.

INSTALLATION

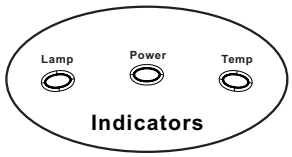
Sub-menu	Function
IMAGE ASPECT	Set the aspect ratio for projected images.
KEYSTONE	Correct the vertical or horizontal keystone distortion.
ORIENTATION	Make the projected images reverse vertically or horizontally according to the installation mode of the projector.
USER'S LOGO	Enable or disable the user's logo function.
LOGO CAPTURE	* LOGO BACKGROUND: Change the fill color behind the logo. * LOGO SCALING: Adjust the scale of the logo screen. * LOGO POSITION: Adjust the position of the logo within its area. * LOGO DELETE: Delete the capture logo. * START LOGO CAPTURE: Start the logo capture process.
SHOW LOGO	Show the logo chosen by user.

MANAGEMENT

Sub-menu	Function
OSD SETTING	* POSITION: Adjust the position of OSD. * TIMEOUT: Set the staying time of OSD. * MODE: Select the background of OSD to be opaque or translucent.
LAMP COUNTER	Display the cumulative lamp operating time.
INFORMATION	Display the input resolution and scanning frequency.
SLEEPING	Set the time to power off automatically.
BACKGROUND	Set the background color when no video signal is being input.
RESET LAMP	Reset the cumulative lamp operating time.
RESET ALL	Reset all items to their default settings.

TROUBLESHOOTING (INDICATORS)

You can check the status of the projector using the indicators on the projector's control panel. Refer to the table below for the cause of problems.



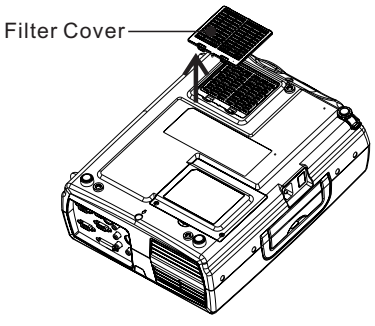
: Lighting : Flashing

Status	Cause & Remedy
Power RED	Standby condition
Power GREEN	Warm-up (40 sec) or Cool-down (60 sec)
Power GREEN	Projection
Lamp RED	The lamp cover or the air filter cover is detached. Attach the cover securely.
Lamp RED	The lamp operates abnormally. Contact the qualified service personnel.
Temp RED	The fan is broken. Contact the qualified service personnel.
Temp RED	The internal temperature is unusually high. Wait until the projector cools down, and turn on the power again.

CLEANING AND REPLACING THE AIR FILTER

The air filter must be cleaned about every 300 hours. If dust accumulates too much and becomes difficult to remove by using vacuum cleaner, please replace the air filter to keep the ventilation of LCD panel module in good condition. The projector attaches one spare air filter for replacement. If more is required, please contact the agent for purchasing or consultation.

User can clean or replace the air filter by following the steps below.



1. Power off the projector and disconnect the power cable.
2. Turn the unit bottom up and open the filter cover.
3. Remove the air filter, and use a vacuum cleaner to clean away the dust, or replace a new one directly.
4. Attach the air filter and install the filter cover.

REPLACING THE LAMP UNIT

Under normal usage, the lamp life time of the projector is about 1500 hours. The output luminance will drop as lamp life diminishes. User can check the used lamp life status in the MANAGEMENT MENU of OSD.

Change the lamp cartridge when the brightness is no more acceptable. User can consult qualified agent or manufacturer for model of lamp cartridge and purchase new ones for replacement.

User can follow the steps below and replace the lamp cartridge.

WARNING

* THE POWER CORD MUST BE DISCONNECTED to prevent the danger of electric shock while user replacing the lamp cartridge.

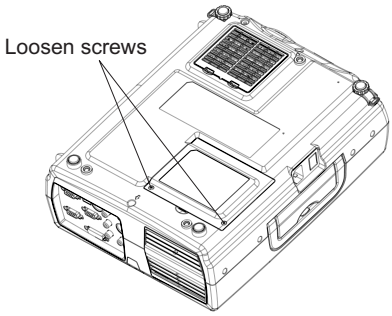
* DO NOT TOUCH THE LAMP immediately after it is used. It will be extremely hot and might cause harm.

* DO NOT RELEASE ANY SCREWS except those in the instruction below. This is to prevent user from the danger of electric shock.

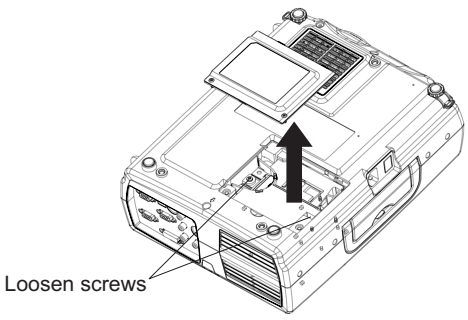
* Replacing ONLY THE SAME OR EQUIVALENT TYPE: SAGEM SLP 504 P/N: 251394995

1. Turn off the power and disconnect the power cord. Wait at least one hour for the lamp to cool down.

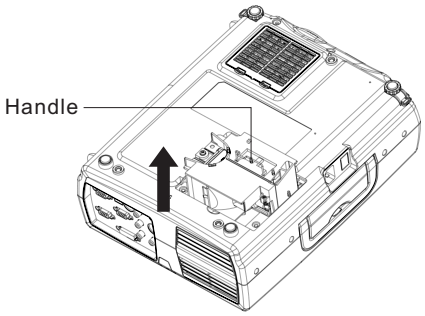
2. Turn the unit bottom up carefully and loosen the two fixing screws on the lamp cover.



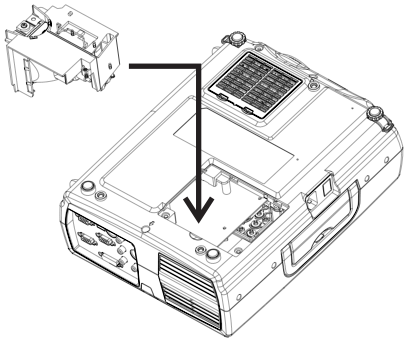
3. Remove the lamp cover and loosen the two fixing screws on the lamp cartridge.



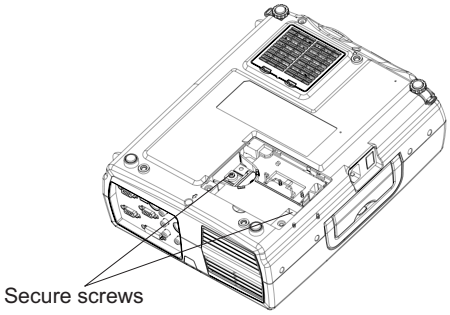
4. Hold the handle and pull the lamp cartridge up carefully to remove it.



5. Install the new lamp cartridge.



6. Secure the new lamp cartridge with screws.



7. Secure the lamp cover with screws. Return the unit to normal position and restart the unit. User can reset the lamp counter (RESET LAMP) in the management menu of OSD manually.

SPECIFICATIONS

OPTICAL

Native Resolution	: XGA (1024 x 768)
Resolution Supported	: VGA - SXGA
Brightness	: 3000 Lumens (A975MP)
Display Technology	: 0.9" Poly-silicon LCD
Contrast Ratio	: 400 : 1
Brightness Uniformity	: >90%
Lamp Life	: 1500 hours
Lamp Power	: 250W
Lens Type	: Manual focus and zoom
F#	: 1.7 ~ 2.0
Image Size	: 25" to 300"
Projection Range	: 1m~15m

ELECTRICAL

Input Source	: VGA Analog, VGA Digital, Video, HDTV(1080i, 720p)
Input Terminals	: Analog RGB: D-SUB 15-pin x 2 Digital RGB: DVI-D x 1 Composite Video: RCA x 1 S-Video: mini DIN 4-pin x 1 Y Pr/Cr Pb/Cb RCA x 3 Audio: Stereo mini-jack x 1
Output Terminals	: D-Sub 15-pin x 1
Computer Compatibility	: PC, Mac
Video Compatibility	: NTSC, PAL, SECAM
Aspect Ratio	: 4 : 3 / 16 : 9
Remote Control	: IR with mouse and Laser point
Audio	: 1W+1W built-in speaker
Audible Noise	: 39dB
Power Consumption	: 320W
Power Requirements	: 100-240 VAC, 50-60 Hz
Keystone Correction	: +/- 15°(Vertical and Horizontal)
Other features	: Digital zoom, Freeze Capability, PIP 3:2 and 2:2 Pull Down, Logo Capture

MECHANICAL

Installation	: Front/Rear/Desktop/Ceiling
Weight	: 4.5 kg (9.9 lbs)
Dimensions	: 27.0 x 35.0 x 12.0 cm (10.6 x 13.8 x 4.7 inch)
Approvals	: CUL, CE, FCC, UL

AVAILABLE ACCESSORIES

Remote Control, VGA Cable, S-Video Cable, Video Cable, Audio Cable, Mouse Cable, YPr/Cr Pb/Cb Cable, AC power cord, Spare Filter, User's manual(One piece of each), Ceiling Mount, Spare Lamp kit

WARNING ⚠

This Equipment has been tested and found to comply with the limits for a Class A digital device.
Operation of this equipment in a residential area is likely to cause harmfull interference in which case the user will be required to correct the interference at his own expense.